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XLV.—*On the Hydroid Lar sabellarum, Gosse, and its Reproduction.* By the Rev. THOMAS HINCKS, B.A., F.R.S.

[Plate XIX.]

MANY years have elapsed since Mr. Gosse described, in the 'Transactions of the Linnean Society,' a remarkable Hydroid, which he named *Lar sabellarum*. From that time to the present nothing more has been heard of it; and meanwhile it has been regarded with a kind of polite suspicion, and has held its place in our systematic works almost on sufferance. The unique oddity of its configuration and the grotesqueness of its attitude, as depicted by Mr. Gosse's pencil, are such as to justify some amount of incredulity, or at least to create a desire for further information. Allman, with a mixture of courtesy and scepticism, says of it, "we are almost tempted to regard it as an abnormal condition of some other form;" and in my 'History of the British Hydroid Zoophytes' I have assigned it a provisional place, in the hope that some new light might be thrown upon it by further observation. Under these circumstances it was with peculiar pleasure that I obtained during the past summer a fine colony of this half-mythical Hydroid in full maturity, and am thus enabled both to remove all doubts as to its true nature, and to complete the history of which Gosse has given us the first lines.

The *Lar* was dredged off the Capstone at Ilfracombe; and its polypites were distributed along the margin of a *Sabella*-tube, the very habitat in which Gosse's specimen occurred.

In the first place, I am able to vouch for the general accuracy of the figure which its discoverer has given us and can affirm that, extraordinary as it *looks*, it does no more than justice to

the original. It may, perhaps, be admitted that the skilful pencil of the artist has introduced the slightest touch of caricature; but it really only serves to bring out more strikingly the remarkable peculiarities of the creature.

The most marked characteristics of the genus *Lar* are to be found in the number and disposition of the tentacles, and in the curious head-like lobe in which the body of the polypite terminates above. The arms are reduced to two, which spring close together from the base of a prominent bilabiate proboscis endowed with great mobility; they are smooth, not muricated or roughened with clusters of thread-cells, and very extensile. These two tentacles face the mouth-bearing proboscis, and act with it in the capture of food; they are frequently jerked in the direction of the latter organ, which is furnished with two broad lips, and is itself capable of the freest and most energetic movement. The proboscis is marked off from the rest of the body by a well-defined constriction; near the top of it occurs a small space, which is thickly paved with thread-cells, forming a kind of boss a little below the summit (Pl. XIX. fig. 2, *a*). The polypites are fusiform, with a trace of brownish colour a little below the terminal lobe, perfectly sessile, and quite naked; they are very active and lively in their movements, and are constantly throwing the body and tentacles into the most fantastic attitudes. "The ludicrously close resemblance" which they bear to the human figure has already been noticed by Gosse, and will be apparent to any one on a reference to the Plate (Pl. XIX. fig. 1). In this genus, then, we have a most interesting modification of the structure that prevails amongst the Hydroida. Instead of a wreath of tentacles immediately surrounding the mouth, or several whorls distributed over the body, we have here two tentacles only, placed on one side and opposed to a highly developed movable proboscis, which acts energetically with them in the capture of prey, and compensates for the reduced number of the prehensile arms.

Gosse was not so fortunate as to meet with the reproductive zooids, and was therefore unable to give a satisfactory diagnosis of the genus; but the Ilfracombe specimen supplied this deficiency, and has shown that the gonosome, no less than the trophosome, is marked by very distinctive characters.

The fertile polypites of *Lar* (Pl. XIX. fig. 1, *ff*) are distributed along the creeping stolon, amongst the alimentary zooids, and bear a strong general resemblance to those of *Hydractinia*. They are slender, somewhat filiform bodies, destitute of tentacula, and terminated at the free extremity by a globular enlargement, in which many thread-cells are imbedded; they are generally inferior in size to the alimentary polypites. The re-

productive buds are borne in clusters of three or four on the upper portion of the body, and when mature detach themselves as free medusiform zooids (*planoblasts*\*) ; they are destitute of an ectothecal covering (a character which they share with the gonozooids of *Clavatella*, *Corymorpha*, and *Cladonema*), and are therefore freely exposed to the surrounding water. In an early stage of development the buds are much elongated (Pl. XIX. fig. 1), and take on their hemispherical form as they approach maturity.

The planoblast (Pl. XIX. figs. 3, 4), at the time of its liberation, is almost hemispherical in form ; the umbrella is perfectly colourless and destitute of thread-cells. The digestive sac or manubrium is very mutable in shape ; normally it is sub-cylindrical, and somewhat swollen at the base, with a slightly lobate mouth. Six radiating canals traverse the umbrella, terminating on the margin in as many oval bulbs of a brownish colour, from which six smooth tentacles originate. Both ocelli and lithocysts are wanting ; but halfway between every two tentacles a minute sac occurs on the margin of the umbrella, containing two or three glittering bodies, which appear to be thread-cells (Pl. XIX. fig. 6). The planoblast, when detached, bears with it a portion of the peduncle which had formed the bond of connexion between it and the parent stock ; this survives as a somewhat conical process above the base of the manubrium (Pl. XIX. fig. 3, *x*), but is no doubt absorbed after a time.

Six is an unusual number for the radiating canals ; amongst the British Hydroida it is met with only in *Clavatella* (which has also occasionally four) and in the genus *Willsia* of Forbes. The smooth tentacles (which closely resemble those of the polypite), the absence of the customary organs of sense, and the minute marginal sacs with thread-cells may also be noted as significant characters†.

There can be no doubt that the genus *Lar* must stand as the type of a distinct family amongst the Hydroida Athecata, which will present features as strongly marked as those of any group in the suborder. Indeed the important modification in the structure of the polypite has scarcely a parallel within the limits of the whole order. A question, however, arises as to

\* Planoblast (wandering bud) is a happy and expressive term introduced by Allman to designate the free gonozooid.

† Allman considers it probable that the marginal sac is the origin of "what in the adult Medusa would become an interradial marginal tentacle" ('Monograph of the Gymnoblasic or Tubularian Hydroids,' part ii. p. 427).

The substance of this paper was communicated to Prof. Allman by letter, and is incorporated in the second part of his 'Monograph' just issued by the Ray Society.

the *name* of the family. *Laridæ* (which would be the natural designation, and which I have adopted in my 'History') has been appropriated by the ornithologists; and Allman proposes to substitute for it the compound *Hydrolaridæ*. I confess that I have serious doubts as to the expediency of this change. It seems to me that no practical inconvenience of any moment is likely to arise from the identity of the two family names, under the circumstances of the case; while there is a positive disadvantage in the adoption of a term which does not at once suggest the typical genus. The rules respecting zoological nomenclature have been framed with a view to general convenience, but are not to be inflexibly applied without regard to special circumstances. In the present case I should feel inclined to retain the name *Laridæ*\*.

The following is the amended diagnosis of the genus *Lar*, and of the only known species.

Subkingdom *CÆLENTERATA*.

Order HYDROIDA.

Suborder **ATHECATA**, Hincks.

Fam. **Laridæ**.

Genus *LAR*, Gosse.

Polypites fusiform, developed on a creeping filiform stolon clothed with a polypary; tentacles two, filiform, springing from one side of the base of a bilabiate proboscis, which is separated by a constriction from the rest of the body. Reproduction by means of medusiform planoblasts, which are borne on imperfectly developed polypites (blastostyles), terminating above in a spherical cluster of thread-cells.

GONOOZOID: *umbrella* (at the time of liberation) subhemispherical; *manubrium* destitute of oral tentacles; *radiating canals* six; *marginal tentacles* six, springing from non-ocellated bulbs.

*Lar sabellarum*, Gosse.

Polypites about  $\frac{1}{40}$  inch in height; a patch of thread-cells near the summit of the terminal lobe; mouth furnished with two broad lips; tentacula very extensile, smooth.

*Gonozooids* borne in clusters of three or four on the upper portion of the slender blastostyles: *umbrella* (at the time of liberation) colourless, destitute of thread-cells; *manubrium* subcylindrical, slightly swollen at the base, of a reddish-brown

\* Cases like the present, in which two family names are identical while the names of the typical genera differ (*Lar*, *Larus*), are likely seldom to occur.

colour, not reaching to the orifice of the bell; tentacles smooth, springing from brown bulbs; a minute marginal sac, with thread-cells, halfway between every two tentacles.

*Hab.* Ilfracombe, off the Capstone, in shallow water, on the tube of a *Sabella*.

## EXPLANATION OF PLATE XIX.

*Fig. 1.* A colony of *Lar sabellarum*, Gosse, highly magnified: *f f*, fertile polypites, laden with the reproductive buds.

*Fig. 2.* A single polypite (a portrait): *a*, collection of thread-cells.

*Fig. 3.* The medusiform gonozooid or planoblast: *x*, the remains of the peduncle by which it was attached.

*Fig. 4.* The same, with the tentacles extended.

*Fig. 5.* The same, as seen from above.

*Fig. 6.* The marginal sac, containing thread-cells.

XLVI.—Notes on Coleoptera, with Descriptions of new Genera and Species.—Part II. By FRANCIS P. PASCOE, F.L.S. &c.

[Plate XV.]

List of Genera and Species.

TROGOSITIDÆ.

*Neaspis* (*n. g.*) *villosa*.

*Peltis* *monilata*.

CUPEPIDÆ.

*Cupes* *ocularis*.

BRENTHIDÆ.

TAPHRODERINÆ.

*Taphroderes* *filiformis*.

— *obtusus*.

EPHEBOCERINÆ.

*Ionthocerus* *ophthalmicus*.

TRACHELIZINÆ.

*Trachelizus* *Howittii*.

*Cordus* *semipunctatus*.

*Amorphocephalus* *sulcicollis*.

ARRHENODINÆ.

*Prophthalmus* *sanguinalis*.

— *planipennis*.

*Stratiorrhina* (*n. g.*) *xiphias*, *Westw.*

*Eupsalis* *promissus*.

BELOPHERINÆ.

*Blysmia* (*n. g.*) *ruficollis*.

CEOCEPHALINÆ.

*Ceocephalus* *internatus*.

— *tenuitarsis*.

ITHYSTENINÆ.

*Phocylides* (*n. g.*) *collaris*.

— *ebeninus*.

*Achrionota* (*n. g.*) *bilineata*.

NEASPIS.

(Trogositidæ.)

*Caput* transversum; *clypeus* brevis, sutura clypeali fere obsoleta; *labrum* late transversum. *Mentum* parvum, subrotundatum; *labium* latum, subtransversum, apice anguste truncatum, barbatum; *maxillæ* lobis subæqualibus, interiore mutico. *Oculi* transversi, integri, grosse granulati. *Antennæ* 10-articulatæ, articulo basali unilateraliter valde ampliato, secundo et tertio obconicis, illo